STUDY PLAN

PCB's in Hartwell Sediments

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Concurred in by

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OBJECTIVES:

- Determine longitudinal and vertical distribution of PCB's in lake sediments.
- Determine changes in PCB concentrations in sediments over a defined time period.
- Determine PCB concentrations in water near the sediment inter-vace -- and changes over time.

CONCEPT:

Obtain center-line, trough core samples of bottom sediments.

Determine sediment profiles of PCB concentrations.

Determine change in PCB concentrations in top-of-core samples over time to determine if PCB-laden sediments are being burried or dissipated.

Obtain near-bottom water samples to correspond with each core sample to determine relative isolation of PCB-laden sediments.

Redetermine PCB profile distribution with depth after 2 years.

Determine if compaction associated with core sampling should be accounted for, and if so, how. NOTE: This will be done using both COE and EPA certified divers.

PROCEDURE:

For 8 selected stations (see map) obtain 3 replicate cores and water samples from two feet off the bottom.

Determine PCB concentrations in 0-25%, 25-50%, 50-75%, 75-100% of depth fraction of each initial core sample and in water samples. Repeat at the end of 2 years or when study is terminated, whichever comes first.

Quarterly between these two sampling periods determine PCB concentrations in the top quarter of each core, and in water samples 2 feet above the bottom. Repeat semiannually thereafter.

Use divers to determine compaction curves with depth of sample during initial sampling period.

EQUIPMENT:

2 Gravity Corers $1500 (est)

e.g. Fleger Corer

(Second corer is a stand-by in case the first is lost)

1 Winch assembly with cable $350 (est)

T Craft Boat on hand

MANPOWER:

3 man crew X 2 days per sampling period

2 man-days for sample processing

3 divers X 2 days for initial sampling period.

NUMBER OF ANALYSES (over 6 yr study)

Initially

8 X 3 X 4 = 96 sediment analyses

8 X 3 = 24 water analyses

Quarterly for 6 quarters

8 X 3 = 24 sediment analyses

8 X 3 = 24 water analyses

At end of 2 years

96 sediment

24 water

Semiannually for 8 periods

24 sediment

24 water

Subtotal 528 sediment analyses

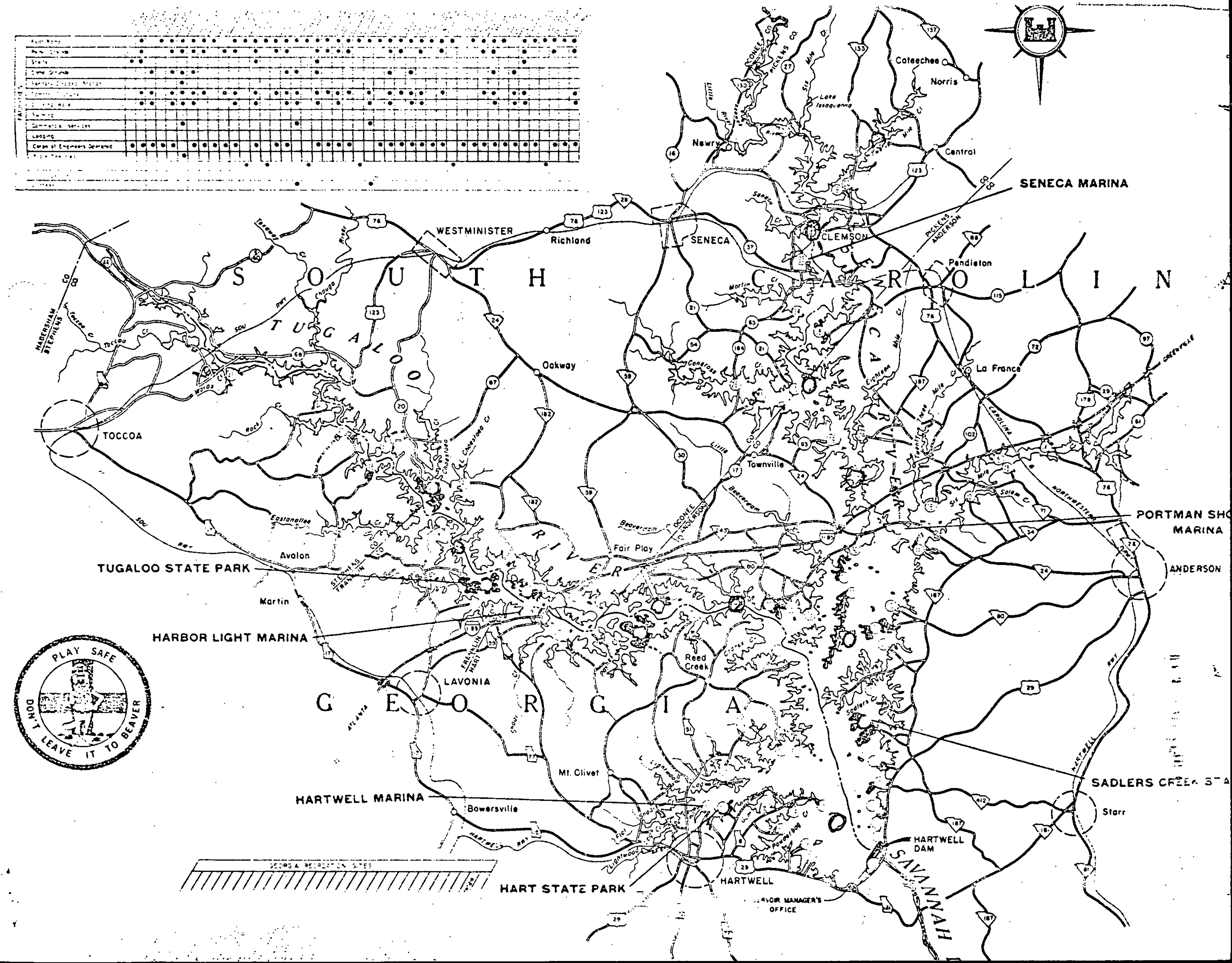
Contigency 72 sediment analyses

TOTAL 600 sediment analyses

TOTAL 400 water analyses

SPLIT SAMPLES WITH COE:

A limited number of samples will be split between the analytical contractor and the South Atlantic Division Laboratory in Atlanta. Costs for the COE half of the analyses will be borne by the Savannah District Office, P.O. Box 889, Savannah, GA 31402


SOUTH CAROLINA
GEORGIA
TUGALOO
RIVER
SAVANNAH
SENECA MARINA
PORTMAN SHO
MARINA
TUGALOO STATE PARK
HARBOR LIGHT MARINA
SADLERS CREEK STA
HARTWELL MARINA
HART STATE PARK
HARTWELL DAM
OFFICE
PLAY SAFE
DON'T LEAVE IT TO BEAVER
WESTMINISTER
Richland
SENECA
CLEMSON
Pendleton
Cateechee
Norris
Central
Newry
Lake Issaqueena
Oakway
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